

## PROFESSIONALISM - THE CHALLENGE OF THE 70's

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Gentlemen: It is an immense pleasure for me to have the opportunity to address you this morning and to appear with this distinguished group of speakers. As an engineer with close ties to the Highway Department throughout my entire career, I look forward to this conference each year because it gives me a chance to renew many friendships and to make new acquaintances. It also is a time for reminiscence, since I was in attendance at the first conference and have attended most of them.

When asked to appear before this distinguished audience as president of the KSPE and on behalf of the engineering profession in Kentucky, I was pleased and excited. When Bob Deen called and asked for a title for my talk, I suggested a real imaginative one: "Professionalism - The Challenge of the 70's."

I'm being a little facetious about the originality of the title, of course, but I think the topic is one that has real meaning for this conference.

Why? We are living in the most affluent and yet the most turbulent period of history. No other people have had so many luxuries, so much leisure or so much money, but no other people have had so many problems: the monumental traffic jams, the alarming increase in the number of emphysema victims, a sure sign of deteriorating environment, or the habit of taking more and more aspirin and ordering taller and taller drinks. As a result, the world is changing, society is changing and man is changing. Whether these changes are to be beneficial or catastrophic is an unanswered but fundamental question.

As professional engineers and highway administrators, we therefore have a common bond, a mutual resource and a tremendous challenge for the 70's, to evoke, channel, and guide the changes reshaping society so that human life will become more humane, more satisfying, and more productive.

Several aspects of this situation merit further discussion because they directly affect our workaday duties. "Environment," for example, has become a popular topic and a household word on everyone's tongue. That it should be logical and right. Because of advanced technology, Americans now have the time to consider the effects of machines on their surroundings. More importantly, and again because of technology, Americans now can afford the luxury of reassigning priorities and of placing higher values on resource preservation and development, but it still is the engineer and dedicated civil servant, not the "environment dabbler," who determines the alternatives.

Consider "public participation hearings." No one can fault the belief in the public's right to participate in planning decisions; such public action, in fact, is the characteristic that distinguishes between American society and Russian society. In a free nation, sociological change should exert influence on highway-location decisions to the detriment of environment. For example,

some of the decisions regarding location of expressway sections in the Louisville area were made by non-engineers and detrimental effects resulted both by bad geometrics as well as neighborhood damage. I am confident that the engineer could have prevented these less than desirable decisions had he utilized all the resources at his disposal.

There has emerged a number of new, exciting and glamorous professions and other fields of endeavor that have supplanted the engineer in some areas where he is best qualified to act. This too may be beneficial and inevitable in today's fragmented, highly specialized way of life. However, the engineer continues to do the work, to make the impossible become possible, to innovate and improve, and to contribute immeasurably to the "better" life. He may not be pretty, but he sure does work!

This leads me to the first point I wish to make this morning. We as a people must cope with the overwhelming mysteries uncovered by modern technology, the age of space travel, revolutionary medical research, supersonic aircraft and the like. However, we must also solve the more basic problems of people, new town planning, rapid transit for our urban areas, and new approaches to highway planning for our mobile society. I sincerely believe that the engineering profession has an almost unequalled opportunity to develop solutions to these problems. I believe that the engineer, by reason of his talent, education, and decision-making experience, is uniquely qualified to take the lead in attacking the problems of 20th century man, that the engineer's training permits him to combine the way with the will and that he can act instead of talk.

In order to fulfill this responsibility to himself and to society, the engineer must adopt new attitudes and approaches. Historically he has been an introvert and has stayed in the background, permitting some of the more aggressive people and groups to move ahead. Now he must no longer be content to listen to society or a portion of society and meekly accept their values or serve their demands. Instead, he must help shape society's goal, he must raise his voice to question and protest actions with illusory short run benefits and long run detriments, and above all he must insist that information and action be sequential, that unless information leads to effective, beneficial action, it is largely useless, no matter how well intentioned the purpose; no matter how dedicated the information gatherers and purveyors.

How is this to be done? The answer is so obvious and the solution so difficult! And it leads to point No. 2.

One man alone can do only so much; two men can do much more. Hundreds of men with like interests together can work wonders. I'm speaking of the need for organization, of course. There are several examples in the other professions. I think immediately of the Kentucky State Bar Association.

First, it is dedicated to the continual upgrading of the legal profession and serves as a technical association that permits the oldest, most experienced members to counsel and teach the younger members, and vice versa.

Secondly, the KBA promotes a program of continuing education that allows lawyers to keep ahead of new developments and equally important, relate these developments to the events and forces at work outside their immediate spheres of interest.

Finally, the KBA permits attorneys in Kentucky to speak as a unit and with one voice so that when a position on an issue is taken, it is clearly that of the entire profession, not a minority, since membership in the KBA is unanimous by lawyers in the State.

In making point No. 3, I should like to review with you some of the history of the Kentucky Society of Professional Engineers and its relation to the engineering profession as well as its plans for meeting the challenge of the 70's.

I have often been asked, and specifically by some engineers in the Highway Department, "What has KSPE done for the profession and what will it do for me if I become a member?" And, "why should it be necessary to belong to KSPE, since I belong and am active in ASCE?" As I proceed we will examine these questions in depth and think about what we mutually have to offer.

First, let's look at history. KSPE was organized in 1934 by a group of interested and dedicated engineers who had a common purpose, i.e., the desire to upgrade the profession. The group's first effort was to provide impetus for getting the registration law enacted. Their initial try was unsuccessful, but the next one was favorable and we got in business as a profession with the adoption of KRS Chapter 322. Some of you in this audience were involved in that effort and will attest to KSPE's strong support for the move.

What about salaries? Over the years, KSPE has been a leader in promoting improvements of engineer's salary levels. In 1949, you will recall, KSPE was instrumental in getting voters to approve a Constitutional amendment changing the salary limit from \$5,000 per year to \$7,200. And no one was happier than the KSPE when in 1962 the Court of Appeals adopted the "rubber dollar" concept based on the purchasing power of the dollar and, in effect, raised the Constitutional limit to today's level.

Much could be said about various activities of our Professional Engineer in Government Committee and its activities over the years in seeking improved conditions within the department. And the success that has been obtained has been a result of dedicated efforts on the part

of some of you who are here today and who have given unselfishly of your time and energies over the years for the benefit of the entire program.

The specific question of "what has KSPE done for me" has been explored and I trust you'll agree with me that much has been done of direct benefit to the PE in the Department of Highways. The question of dues, and the statement they are too high is often made. But really, is 50 dollars too much for one to support his chosen profession; his means of livelihood? To put it in a context of comparison, that's just a half a pack of cigarettes a day or for those of you who quit smoking, a coke from a vending machine. This is also small compared to union dues. (And you know engineers are organized in some areas.)

"And why should I belong to KSPE and ASCE if I'm a Civil Engineer?" Well, the ASCE, oldest of the founder societies is directed toward more technical aspects of the profession. The meetings of ASCE are generally dedicated to varying degrees of continuing education. I recall so vividly Dean Terrell telling us as students that continuing education is a must, that one's formal education would be obsolete in about ten years. Then Dean Shaver began citing a shorter period, five years or so. And now Bob Drake says that today's college education becomes obsolete in four years. So it's no wonder that my copies of Civil Engineering become dog-eared so quickly.

In concert then, KSPE can provide continuing education in many areas which are applicable to all fields of engineering and can assist in improving ethical standards throughout the profession.

On the positive side, how can you answer "What will KSPE do for me if I join?" This is one of the troublesome ones. It seems to be of significance to relate this to the famous saying of President Kennedy, "Ask not what your country can do for you, but what you can do for your country?" There is an analogy here that seems relevant to our profession. The professional attitude is a state of mind and there must be a desire to make some input. The returns will be manifold if all participate.

What about the present? You are aware that Doug Harnice, Deputy Commissioner, is a KSPE Vice President and Calvin Grayson, Assistant State Highway Engineer, is Chairman of our Long Range Planning Task Force and recipient of last year's P.E. in Government award. I could name many others who are active and participating at the chapter level. Our capital Chapter is extremely active and much of the leadership comes from the Department. I am pleased that the State Highway Engineer, all of the Assistant State Highway Engineers and many of the other top engineers in the Department are members of KSPE, but in the District offices our percentage of members is low.

What about the future? Well I don't have any magic answers or panaceas, but the KSPE is considering a number of ideas. I am proposing, for example, that membership should be automatic when a new engineer becomes registered, thereby adding new strength to the unified voice of the profession.

Then there is the question of understanding, or misunderstanding, between the various design professions.



At the convention of the Kentucky Society of Architects in Lexington last month, I proposed the establishment of a State-level ICED (Interprofessional Commission for Environmental Design) similar to the National ICED. Membership would be from the six organizations in the environmental design areas (ASCE, ASLA, AIA, CEC and NSPE, through their State organizations), and this would help develop liaison and improve lines of communication between all interests in this important field.

Then there is need to upgrade the registration law (we've been trying for the last two sessions) to keep pace with the times. This will be of direct benefit to the Department and its engineers as well as the entire profession and the general public.

So in conclusion let me summarize:

The "Challenge of the 70's is exciting and I am optimistic for the engineering profession. We can be an effective voice in meeting the challenge of the 70's if all engineers join together. A tremendous opportunity exists to have participation by all engineers and benefits will accrue manifold.

In our over organized society, how do we rationalize the need for all? The answer is that KSPE can and should speak with unified voice on matters of general engineering interest, the founder society can and should continue in specific areas of technical knowledge. KSPE has provided direct benefit for the engineer in the Highway Department and will continue as part of our continuing effort. This can be done more effectively with greater participation and involvement by those engineers not presently members.

So, in the 70's, transportation will continue to be a major thrust, and the expertise of Kentucky's Highway Department Engineers will continue to meet the challenge and you will continue to have the support of KSPE. So that we can have maximum participation to achieve maximum results, won't you join us by becoming a member if you do not belong, and to join in full participation to make us truly a unified voice of the engineering profession.